

CLAIMS

What is claimed:

1. A method to determine if a patient is afflicted with ovarian cancer comprising:
 - a) obtaining a sample from the said patient;
 - b) determining the levels of gene expression of two or more of the genes listed in Table 9 in the sample from the patient;
 - c) comparing the levels of gene expression of the two or more genes determined in (b) to the levels of the same genes listed in Table 1;
 - d) determining the degree of similarity (DOS) between the levels of gene expression of the two or more genes determined in (c); and
 - e) determining from the DOS between the level of gene expression of the two or more genes the probability that the sample shows evidence of the presence of ovarian cancer in the patient.
2. The method of Claim 1, wherein the levels of gene expression are determined for a subset of the genes listed in table comprising genes Nos. 1-28 in Table 9.
3. The method of Claim 1 or 2, wherein the sample comprises cells obtained from the patient.
4. The method of any one of Claims 1 to 3, wherein the sample comprises cells removed from a solid tumor in the said patient.
5. The method of any one of Claims 1 to 4, wherein the sample comprises blood cells and serum drawn from the said patient.
6. The method of any one of Claims 1 to 5, wherein the sample comprises a body fluid drawn from the patient.
7. The method of any one of Claims 1 to 6, wherein the method of determining the level of gene expression comprises measuring the levels of protein expression product in the sample from the patient.

8. The method of Claim 7, wherein the presence and level of the protein expression products are detected using a reagent which specifically binds with the proteins.
9. The method of Claim 7 or 8, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative and an antibody fragment.
10. The method of any one of Claims 1 to 6, wherein the levels of expression in the sample are assessed by measuring the levels in the sample of the transcribed polynucleotides of the two or more gene in Table 9.
11. The method of Claim 10, wherein the transcribed polynucleotide is an mRNA.
12. The method of Claim 10 or 11, wherein the transcribed polynucleotide is a cDNA.
13. The method of any one of Claims 10 to 12, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.
14. The method of any one of Claims 1 to 13, wherein the method is performed ex vivo.
15. A method of treating a subject afflicted with ovarian cancer, the method comprising providing to cells of the subject an antisense oligonucleotide complementary to one or more of the genes whose expression is up-regulated in ovarian cancer as shown in Table 6.
16. A method of inhibiting ovarian cancer in a subject at risk for developing ovarian cancer, the method comprising inhibiting expression of one or more of the genes shown in Table 6 to be up-regulated in ovarian cancer.

17. A kit for use in determining treatment strategy for a patient with suspected ovarian cancer comprising:
 - a) two or more antibodies able to recognize and bind to the polypeptide expression product of the two or more of the genes in Table 9;
 - b) a container suitable for containing the said antibodies and a sample of body fluid from the said individual wherein the antibody can contact the polypeptide expressed by the two or more genes shown in Table 9 if they are present;
 - c) means to detect the combination of the said antibodies with the polypeptides expressed by the two or more genes shown in Table 9; and
 - d) instructions for use and interpretation of the kit results.
18. A kit for use in determining the presence or absence of ovarian cancer in a patient comprising:
 - a) two or more polypeptides able to recognize and bind to the mRNA expression product of the two or more genes shown in Table 9;
 - b) a container suitable for containing the said polynucleotides and a sample of body fluid from the said individual wherein the said polynucleotide can contact the mRNA, if it is present;
 - c) means to detect the levels of combination of the said polynucleotide with the mRNA from the two or more genes shown in Table 9; and
 - d) instructions for use and interpretation of the kit results.